

# Consistency of mate choices - values, sociosexuality, physical exercise and self-perceived mate value

Helmi Rautaheimo, 37768

Master's Thesis in Psychology

Supervisors: Annika Gunst and Patrick Jern

Faculty of Arts, Psychology and Theology

Åbo Akademi University

Spring 2019

**ÅBO AKADEMI UNIVERSITY – FACULTY OF ARTS, PSYCHOLOGY AND  
THEOLOGY**

<b>Subject:</b> Psychology	
<b>Author:</b> Helmi Rautaheimo	
<b>Title:</b> Consistency of mate choices - values, sociosexuality, exercise behavior and mate value	
<b>Supervisors:</b> Annika Gunst and Patrick Jern	
<b>Abstract:</b> Mate choice has developed through natural selection to ensure the survival of our genotype through choosing mates that possess adaptive traits that will benefit our offspring in surviving and reproducing. Much of the research on mate choice has focused on mate preferences and spousal similarity, while little is known about our actual choices and their consistency in time. The goal of the current study was to investigate, whether multiple partners to people are similar in terms of political and economic values, religiosity, sociosexuality, mate value and exercise behavior. By calculating how much of the variance in these traits is attributable to the focus person, we could see if people chose partners according to individual preferences for these traits consistently through multiple relationships. The sample consisted of 15 focus persons, who then contacted their former/current partners to respond to a survey assessing these traits. 44 former/current partners were included. Intraclass correlations (ICCs) were calculated for each trait, where higher effects indicated that the variance of a trait was attributable to the focus person, (i.e. the focus person has an individual type in terms of the trait). Political values, sociosexual behavior and exercise frequency reached large effects of clustering. The effect of exercise frequency reached a nominally significant level of $p = .04$ . None of the effects were significant after controlling for multiple comparisons. These effects should be studied further with a sample with adequate power. The current study is the first one to study clustering of values, exercise behavior, sociosexuality, and mate value.	
<b>Keywords:</b> Mate choice, consistency, values, attitudes, sociosexuality, mate value, exercise, clustering	
<b>Date:</b> 25.5.2019	<b>Page count:</b> 28
<b>Level:</b> Master's thesis	

<b>Ämne:</b> Psykologi	
<b>Författare:</b> Helmi Rautaheimo	
<b>Avhandlingens titel:</b> Följdriktighet i partnerval – värderingar, sociosexualitet, motionsvanor och partnervärde	
<b>Handledare:</b> Annika Gunst och Patrick Jern	
<p><b>Abstrakt:</b></p> <p>Partnerval har utvecklats genom naturligt urval för att föra vidare våra gener. Att välja en partner som besitter adaptiva drag främjar överlevnaden och reproduktionen av vår avkomma. Forskningen kring partnerval har fokuserat på partnerpreferenser och likheter mellan partners. Det finns lite forskning kring själva processen av partnerval. Målet med den föreliggande studien var att undersöka om nuvarande och/eller tidigare partners till individer liknar varandra i deras politiska och religiösa åsikter, sociosexualitet, partnervärde och motionsvanor. Med andra ord var målet att undersöka om människor väljer partners enligt individuella preferenser följdriktigt genom flera förhållanden. För att se om människor har en ”typ” när det gäller dessa drag analyserades hur stor andel av variansen är beroende av fokuspersonen. Samplet bestod av 15 fokuspersoner och 44 av deras partners. Intraklass korrelationer (ICCs) räknades för variablerna, där större effekt indikerar att det finns klustring av drag hos fokuspersonernas partners. Politiska åsikter, sociosexuella beteenden och motionsfrekvens visade en stor effekt av klustring. Effekten av motionsfrekvens uppnådde en signifikansnivå av <math>p = 0.04</math>. Dessa effekter var inte signifikanta efter korrigering för multipla jämförelser. Resultaten borde studeras noggrannare med ett sampel med adekvat statistisk styrka. Den föreliggande studien är den första där klustring av värderingar, motionsvanor, sociosexualitet och partnervärde undersöks hos flera parnters till fokuspersoner.</p>	
<b>Nyckelord:</b> Partnerval, värderingar, attityder, sociosexualitet, partnervärde, motion, klustring	
<b>Datum:</b> 25.5.2019	<b>Sidantal:</b> 28

## ACKNOWLEDGEMENTS

In Turku, May 2019,

I would like to thank my supervisors Annika Gunst and Patrick Jern for supporting me through the writing process and for the valuable feedback and advice. Thank you for making it easy to ask questions and taking the time to help. I also want to thank Julia Martin who made sure this project got done and helped me to get started. Thank you Jan Antfolk for helping us get through analyzing the data. Getting peer support from the group on our thesis writing seminars made the process seem a lot less intimidating and at times even fun, thank you all who participated. I also want to thank my fellow students, everyone who ever sat with me through the long afternoons at our university, the sense of community, support and compassion is something I am sincerely grateful for. I could not have gotten the job done without your help and company. A special thanks for Jeremia Sjöblom for your thoughts and ideas, for eating lunch with me twice a day and inspiring me with your endless thirst of knowledge. Thank you Lea Gädda for helping me with my Swedish summary. Finally, I would like to thank my friends that showed by their example that there is light at the end of the tunnel. Thank you.

## TABLE OF CONTENTS

Abstract	
Abstract in Swedish	
Acknowledgements	
INTRODUCTION.....	1
Mate choice .....	1
Partner preferences and mate choice .....	1
Spousal concordance and mate choice .....	2
Consistency of mate choices over time .....	3
Politics, religion and mate choice.....	4
Sociosexuality and mate choice.....	4
Mate value and mate choice .....	5
Physical exercise .....	5
Aims and hypothesis of the current study .....	6
METHOD .....	6
Procedure.....	6
Ethical aspects .....	7
Sample .....	8
Measures.....	10
Assessment of religiosity .....	10
Assessment of political and economic values .....	10
Assessment of mate value.....	11
Assessment of sociosexuality .....	11
Assessment of exercise behavior .....	11
Statistical analyses.....	12
RESULTS.....	13
DISCUSSION.....	16
Main findings and interpretation .....	16
Limitations of the current study.....	18
Conclusion.....	20
REFERENCES .....	24

## INTRODUCTION

The purpose of the present study was to investigate if people consistently choose partners that are similar to each other, in other words, to see if individuals have a preferred type when it comes to mate choice. Researchers have been trying to understand human mate choice by, for example, studying partner preferences (Buss, 1989; Lukaszewski & Roney, 2010; Townsend & Levy, 1990), actual mate choice in speed-dating environments (Conroy-Beam & Buss, 2016), and spousal resemblance (Bouchard & McGue, 1981; Buss, 1984; Lykken & Tellegen, 1993; Vandenberg, 1972). The question about whether individuals actually choose according to a specific type remains unanswered due to the lack of data on multiple partners of one person. Such data are scarce and difficult to collect, but they offer valuable information about the consistency of people's partner choices over time. The present study investigated similarities of multiple partners to one person, regarding political and economic values, sociosexuality, mate value and exercise behavior.

### **Mate choice**

Different processes affect our decisions while choosing romantic partners. From an evolutionary perspective, our mate preferences are thought to have developed through natural selection to enhance the well-being of our offspring (Geary, Vigil, & Byrd-Craven, 2004). In other words, while choosing a partner, innate mate preferences affect decision making to make sure that future offspring will have better chances of survival. Men and women have different preferences to potential mates, because of inherent differences in parental investment between the sexes (Trivers, 1972). Having offspring requires a big investment from the mother: a nine-month pregnancy followed by giving birth and breastfeeding. This leads to a difference in relative parental investment of the sexes, which makes women picky in choosing fathers for their children. Men do not have to be that choosy, since the minimum effort required for producing offspring is considerably smaller for men. This should lead, in theory, to males and females having different strategies in mate selection to increase their reproductive success (Trivers, 1972).

**Partner preferences and mate choice.** Sex differences in mate preferences (i.e., traits that men and women report to be desirable in potential partners), have been identified in previous research. Men tend to prefer younger age and physical attractiveness to a higher degree than women, whereas women tend to value financial capacity, ambition and industriousness in a partner more than men do (Buss, 1989). Traits that both sexes tend to value equally are, for example, kindness and generosity (Lukaszewski & Roney, 2010) and social status (Pérusse, 1993). However, it is unclear how much these preferences actually affect our decision making in real-life situations

of dating and mate selection, since most of the research have not studied actual mate choice (Conroy-Beam & Buss, 2016). Todd, Penke, Fasolo, and Lenton (2007) found that participants' self-reported preferences had only weak correlations with the actual choices they made in a speed-dating environment. Men made their choices mostly based on the physical attraction of the females, regardless of their self-reported preferences. Women were, on average, more selective than men, but neither men nor women chose partners in a way that matched with their stated preferences. Decision-making related to mate choice thus appears more complicated than one might anticipate, and studies on mate preferences do not translate directly to actual mate choice.

**Spousal concordance and mate choice.** While it is unclear to what extent partner preferences affect our decisions, robust evidence for assortative mating (i.e., nonrandom mating) has been found (Robinson, Nolte, van Vliet-Ostapchouk, Snieder, & Visscher, 2017). We seem to choose partners that are similar to us in many ways. Research on married couples show that spouses resemble each other in physical appearance (Vandenberg, 1972), personality (Buss, 1984) and intelligence (Bouchard & McGue, 1981). Lykken and Tellegen (1993) found that spouses tend to have similar values, leisure time interests, and attitudes. The similarities between spouses in personality and physical appearance are quite small, whereas political and social attitudes show high concordance between spouses (Alford, Hatemi, Hibbing, Martin, & Eaves, 2011). It seems that we are drawn to people with whom we share traits, especially values and attitudes.

There are other possible ways to explain the observed similarities between spouses. Heath and Eaves (1985) suggested three potential explanations: assimilation, social homogamy and phenotypic assortative mating. According to the assimilation hypothesis, spouses become more similar over time because of their mutual life experiences and mutual influence. This hypothesis has been tested by cross-sectional studies investigating how relationship duration affects similarity. Alford et al. (2011) divided couples into groups according to the duration of their relationships and found that the similarity of political attitudes was present from the beginning. Support for the assimilation hypothesis have not, however, been observed with regards to personality (Buss, 1984; Humbad, Donnellan, Iacono, McGue, & Burt, 2010).

Social homogamy or demographic sorting might best explain similarity. We tend to choose our partners from the same social circle, that is, from a pool of individuals with a similar socioeconomic background to our own (Kalmijn, 1998). Belot and Francesconi (2013) found that dating markets and meeting opportunities shape mate choices. We date people from the circles where we interact with others, for example, from the same school or work place. In a study by Eastwick, Harden, Shukusky, Morgan, Joel, et al. (2017), personality traits, religious attitudes and intelligence correlated between a person's past and current partners. The effect sizes dropped when

demographic stratification was accounted for, so that observed similarities were explained by the school the participant (and his/her partners) went to. Therefore, phenotypic assortative mating did not explain the similar religious beliefs, traits of personality and intelligence of the mates.

According to these results, we appear to end up with people from the same environment, and these people are more likely to present with similar beliefs and traits to our own. Since this study is the first one to compare a person's past and current partners, replication is needed to confirm these results. No studies comparing a person's multiple partners' values, leisure time interests and attitudes have yet, to my knowledge, been published.

Lykken and Tellegen (1993) compared spouses of monozygotic and dizygotic twins and found that the spouses of monozygotic twins were not more similar to each other than the spouses of dizygotic twins. If our tendency to choose partners that resemble us follow be a genetically determined pattern, we would expect spouses of monozygotic twins to resemble each other more than spouses of dizygotic twins. The study showed that the participants' other choices in life had been more similar for monozygotic twins than dizygotic twins. This supports the hypothesis that mate choice is not only a product of assortative mating but also under the influence of other factors such as social homogamy.

### **Consistency of mate choices over time**

One way of studying human mate choice is by collecting data on multiple (past and/or current) partners of a person and study if there is clustering on traits, values and preferences (e.g., political values, engaging in physical exercises and sociosexuality). Clustering would mean that a person's partners resemble each other more than could be expected by chance (Eastwick et al., 2017). If assortative mating exists, a person's current and former partners should be more similar to one another compared to other people (i.e., individuals that a person has not chosen as partners). Social homogamy should produce clustering of traits. People often date others that share the same environment, and therefore have same kind of values and other traits.

This analytic strategy enables us to study real mate choices made by an individual. Comparing multiple partners of the same individual which each other gives us information about the consistency of mate choices, that, for example, studies on spousal concordance will not. This method was used by Eastwick et al. (2017) in a study where they found evidence for clustering of partner qualities such as religiosity, delinquency and self-esteem. The effect sizes were small on average, except for intelligence, which showed a clustering explaining 30% of the variance between former and current partners of a focus person. Clustering of partner qualities dropped to an average of 5% when demographic stratification was controlled for. Clustering was, therefore, explained by



social homogamy, rather than a person's mate preferences. Since this is the only study that has used this analytic strategy, more studies are needed to confirm the results.

### **Politics, religion and mate choice**

When choosing a partner, the biggest deal breakers seem to be politics and religion. These are the questions that matter the most for users of the dating app OkCupid (Cooper, 2017). Research on partner similarity indicates that values, political attitudes and religiosity show the highest correlations between mates (Alford et al., 2011; Luo & Klohnen, 2005; Lykken & Tellegen, 1993). Eastwick et.al. (2017) found that 26.8% of religiosity of a person's multiple partners was attributable to the focus person. When demographic stratification was controlled for, an average of only 5.4% of the shared variance was attributable to the focus person.

### **Sociosexuality and mate choice**

Sociosexual orientation describes a person's willingness to engage in sexual activity without emotional bonding and commitment (Simpson & Gangestad, 1992). The evolutionary theory explains the differences in sociosexual orientation to be caused by the different sexual strategies developed through frequency dependent selection (Gangestad & Simpson, 1990). In other words, women and men have developed different sexual strategies depending on the environment they live in. Women can try to find a man who will provide paternal investment, which will improve the offspring's chances of survival. This strategy would lead to a more restricted sociosexual orientation. Women can also try to find men that possess adaptive traits, so that when the offspring inherits these traits, they have better chances of survival. This strategy would lead to a more unrestricted orientation. Men can choose to provide parental investment to their offspring, which leads to a more restricted sociosexual orientation. In that case, the man must make sure that the offspring they invest in is actually theirs, therefore, they need to find a woman that is loyal and faithful. A man that does not provide as much investment, will instead benefit from mating with multiple women that possess adaptive traits, which would lead to a sociosexually unrestricted orientation.

This theory was tested by Simpson and Gangestad (1992), and the results indicated that unrestricted and restricted individuals show differences in mate preferences. They found that unrestricted individuals seek partners that have attractive physical qualities, while restricted individuals seek kind, responsible and loyal partners, i.e. partners that have qualities that would potentially make them good parents. Therefore, a person's sociosexual orientation could be an important factor in human mate choice. Tempelhof and Sabura Allen (2008) found a moderate

correlation between mates' sociosexual orientations. Since sociosexuality appears to influence mate preferences, and correlate between couples, it could potentially be a trait that people have individual preferences for when finding a partner. There are no previous studies on sociosexuality of a person's multiple partners.

### **Mate value and mate choice**

There are inter-individual differences in terms of the qualities that promote our reproductive value (i.e., some of us have a higher *mate value* than others; see e.g., Sugiyama, 2005). Mate value has been shown to be associated with mate preferences: people with higher mate value typically demand more preferred qualities in a potential mate (Edlund & Sagarin, 2010). Conroy-Beam (2018) found that the Euclidean algorithm might best describe human mate choice, so that multiple mate preferences are integrated to an overall estimation of a potential partners' mate value. He found that people with higher Euclidean mate value (i.e., mate value counted using the model based on the Euclidean algorithm) had more choice with mates and were better able to choose mates that aligned with their preferences, compared to people with a lower mate value. In real life, the reciprocal nature of mate choice, and the limitations in quality and availability of potential partners lead to the fact that we often choose partners that do not align with all of our preferences. For example, we can have a preference for an intelligent, physically attractive and kind partner, but might settle with an intelligent and physically attractive partner who is not kind. In summary, mate value affects our standards we set on potential partners, and high mate value increases our odds of finding a partner that matches our preferences. We also seem to be drawn to people with a mate value equivalent to our own (Edlund & Sagarin, 2010). Nowak and Danel (2014) found that heterosexual women that had a higher mate value than their partners were less satisfied with their relationships.

### **Physical exercise**

Physical exercise frequency has found to be positively correlated between married couples (George et al., 2015). The similarity did not increase in couples that had been longer together, which could be interpreted to suggest that a potential partner's exercise frequency influences mating decisions. A larger discrepancy between exercise frequency also predicted lower marital satisfaction (George et al., 2015). Thus, physical exercise behavior could show similarity between different partners of the same focus person.

### **Aims and hypothesis of the current study**

The aims of the present study was to investigate if there is consistency in a focus person's (i.e., a person's whose partners we are studying) partner choices in terms of political and economic values, religiosity, sociosexuality, mate value and exercise behavior of partners. By collecting data on a person's previous and/or current partners, we aimed to find out which of these traits show clustering (i.e., whether multiple partners to same person are more similar to one another than would be expected by random chance). Based on previously published literature, we expected to detect clustering showing that current and previous partners of the same focus person are more similar to one another for the following traits:

- 1) Religiosity has been shown to correlate between spouses (Alford et al., 2011) and between multiple partners to a person (Eastwick et al., 2017). Thus, we expected to detect clustering of this trait.
- 2) Political and economic values have been shown to correlate between spouses in previous studies (Alford et al., 2011), and therefore we expected to detect clustering of these traits.
- 3) Results reported by Edlund and Sagarin (2010) suggest that both men and women prefer mates with mate values similar to their own. Therefore, we expected to detect clustering in terms of mate value.
- 4) Based on Tempelhof and Sabura Allen's (2008) results, we expected to find clustering in sociosexual orientation.
- 5) George et al. (2015) found a strong correlation between spouses' exercise frequency. Hence we hypothesized that there will be clustering in terms of exercise behavior.

## **METHOD**

### **Procedure**

The data used in the present study were collected with an online survey. Two different online surveys were used, one for the focus person (Survey 1), and one for the partners of each focus person (Survey 2). Each focus person was instructed to choose at least two people they had had romantic/sexual relations with. To qualify for the study, all participants had to be 18 years or older and give informed consent. Participation was completely anonymous.

Recruitment of participants was done in two ways: we recruited focus persons who in turn recruited their partners themselves. Emails with information about Survey 1 (for focus persons) were sent to university mailing lists, and information about Survey 1 was shared by the research

team on social media (e.g., Facebook, Instagram, and Reddit). Surveys 1 and 2 were active for four weeks during the time period 8/27/2018-9/23/2018. The responses of all different partners that belonged to the same focus person were linked by a participation code. The focus persons were asked to generate a participation code that they would provide to the partners that they contacted with a request to participate. After giving written informed consent, constructing a participation code and completing Survey 1, the focus persons were asked to contact their current and/or ex romantic partners for the research and send their participation code and the link to Survey 2. A romantic partner was defined as someone that the focus person had expressed interest in, but it did not necessarily mean that they had had sex with the person. For example, having been on a date with someone would qualify them as a romantic partner. A sexual partner was defined as someone the focus person had had some kind of sexual relations with (also including kissing) in accordance with (Eastwick et al., 2017). To minimize bias, we mentioned that if possible, the focus person should not leave out partners who they perceived as different from the rest of the partners. However, the focus person was free to choose whomever they wanted to, and were informed that they could choose not to contact a previous partner if they were uncomfortable doing so. The focus person was asked to report the number of partners they contacted. The focus person was instructed that they could contact more partners even after completing the survey, as long as they sent the same participation code to each partner. They were also informed that they themselves could participate as a partner in the event of an old partner contacting them.

After receiving the link to Survey 2 and giving their written informed consent, the partners were instructed to fill in the participation code they got from the focus person. This way the partners could be linked to the right focus person anonymously. Survey 2 consisted of several self-report questionnaires assessing the partners' personality traits and values and attitudes. The instruments included in Survey 2 are described in more detail in the Measures section.

### **Ethical aspects**

The Board for Research Ethics at Åbo Akademi University gave a positive evaluation of the research plan describing the present study. The focus persons had to contact their partners themselves for the study. This was chosen as the recruitment method because it would ensure anonymity of the participants but also establish transparency about the aims of the study (i.e., no information was collected without the knowledge of the partners). Anonymity was ensured by using a participation code. Each focus person was instructed to come up with a code that they would send to the partners they contacted. The code also made it possible for the research team to match the partners to the right focus person anonymously. Contacting a former partner could potentially

trigger negative emotions. However, participation was completely voluntary for all involved, and focus persons were informed that they did not have to contact partners they were not comfortable contacting. Informed consent was obtained from all participants in accordance with the Helsinki declaration.

### **Sample**

The total amount of focus persons who opened the survey was 634. Of these, 226 filled in a participation code. From the 226 focus persons, 74 finished the survey. The initial number of partners who had started the survey was 92, of whom 16 did not fill in the participation code and were therefore excluded. Of the remaining 76 participants, 17 participants were excluded due to them being the sole partner of a focus person and therefore, could not produce a clustering effect. An additional 12 individuals were excluded because they had not completed the questionnaires assessing 1) Religiosity (Koenig & Büssing, 2010), 2) Political and economic values, 3) Mate value (Edlund & Sagarin, 2014), 4) Sociosexuality (Penke & Asendorpf, 2008), or 5) Exercise behavior (Godin & Shephard, 1985). An additional three partners were excluded because they became the sole partner after excluding those with missing on the required data. The final number of partners was 44, and on a group level sorted by focus person there were 15 groups (each group consisted of partners of one focus person). The inclusion and exclusion process are presented in Figures 1 and Figures 2. The average number of partners per focus person was  $M = 2.93$  ( $SD = 1.22$ , Range = 2-5). Of the focus persons, four were men and ten were women. One participant chose the third option “other” to describe their gender. Details of the partners are presented in Table 1.

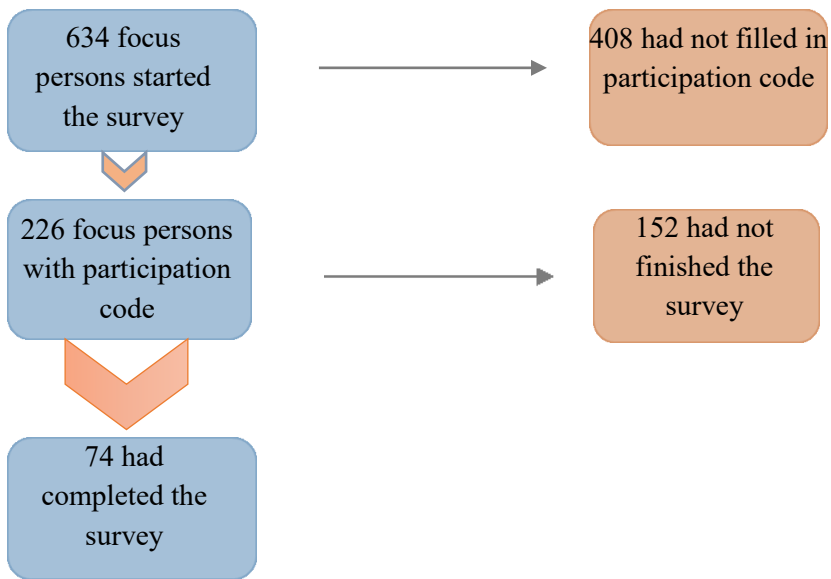


Figure 1. Flowchart over the process of inclusion (left side) and exclusion (right side) of respondents who took part as focus persons.

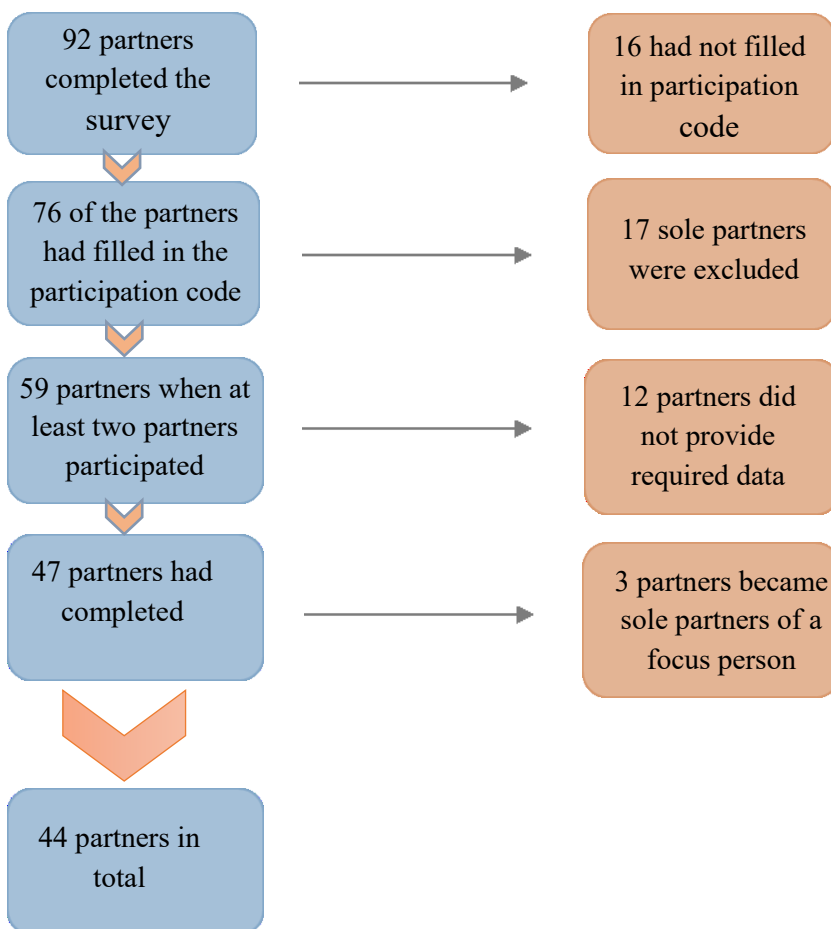


Figure 2. Flowchart over the process of inclusion (left side) and exclusion (right side) of partners of the focus persons.

Table 1.  
*Gender, sexuality and occupation of the partners (N = 44)*

Gender	Total (%)	Sexuality	Total (%)	Occupation	Total (%)
Male	29 (65.9)	Heterosexual	29 (88.6)	Studying	20 (45.5)
Female	13 (29.5)	Homosexual	0 (0)	Working	22 (50.0)
Other	2 (4.5)	Bisexual	4 (9.1)	None of the above	2 (4.5)
		Other	1 (2.3)		

*Note:* Sexuality other ( $n = 1$ ) defined themselves as pansexual

### Measures

Survey 1 for the focus persons consisted of questions inquiring about gender and citizenship. No further personal information was collected. Survey 1 also included further instructions on how to construct the participation code and how to proceed with contacting partners. Survey 2 for partners consisted of questionnaires assessing the personality traits, values and attitudes of the partners. In the present study, religiosity, political and economic values, mate value, sociosexuality and exercise behavior were assessed. The partners were further asked to provide personal information that included gender, citizenship, sexual orientation, level of education, occupation, monthly income and their weight and height.

**Assessment of religiosity.** To assess the partners' religious beliefs we used the five-item version of the Duke University Religion Index (DUREL) (Koenig & Büssing, 2010). To keep the survey short and to avoid drop-outs, we only used one of the three subscales, that aims to assess intrinsic religiosity. The three items in the subscale are statements about religious belief and experience. The statements are: "In my life, I experience the presence of the Divine (i.e., God)", "My religious beliefs are what really lie behind my whole approach to life", and "I try hard to carry my religion over into all other dealings in life". Answers are given on a 5-point Likert-type scale. As recommended by Koenig and Büssing (2010) a total score for the subscale was computed by summing up the scores of each item. Higher score suggests stronger religiosity. The test-retest reliability of the instrument is high (Storch, Strawser, & Storch, 2004) as well as internal consistency (Chronbach's alpha .91) and concurrent validity (Storch, Roberti, et al., 2004)

**Assessment of political and economic values.** The partners' political and economic values were measured by two single-item scales from 1 to 100, asking the participants to estimate their values on the scales *conservative-liberal* and *capitalist-socialist*. Short descriptions for these terms were provided.

**Assessment of mate value.** Partners were asked to estimate their mate value by filling in the four-item Mate Value Scale (MVS) (Edlund & Sagarin, 2014). It contains four questions with a 7-point Likert-type scale and assesses mate value by self-report estimates of the person's desirability as a potential partner. The scores are summed up to give a total score of self-estimated mate value. A four item self-report measure on self-perceived mate value, Mate Value Scale (MVS), is a single factor measure with a good internal consistency and test-retest reliability (Edlund & Sagarin, 2014). The measure is based on the assumption that people can accurately estimate their mate value (Brase & Guy, 2004).

**Assessment of sociosexuality.** The Revised Sociosexual Orientation Inventory (SOI-R) (Penke & Asendorpf, 2008) is a 9-item questionnaire that assesses sociosexuality on three dimensions: behavior, attitude, and desire, that each are measured by three questions. The behavior dimension contains questions about one's past sexual behavior with a partner, with a 9-point Likert-type scale ranging from "0" to "20 or more" partners. The attitude dimension contains questions about one's attitudes towards uncommitted sex with a 9-point Likert-type with anchors 1 = "strongly disagree" to 9 = "strongly agree". The desire dimension contains questions about arousal and fantasies regarding uncommitted sex. On this dimension the 9-point Likert-scale ranges from "never" to "at least once a day". When scoring SOI-R, a total score is counted for each of the dimensions, and a global score that contains scores from all nine items (Penke & Asendorpf, 2008). Higher scores are suggestive of a more unrestricted sociosexual orientation. The Sociosexual Orientation Inventory developed by Simpson and Gangestad (1991). Penke & Asendorpf (2008) developed the self-assessment questionnaire further, by identifying three factors that provides a better description of sexual orientation. They found that a person's sociosexual desire, behavior and attitudes have weak correlations, and therefore created a revised 9-item version, SOI-R, that is based on these three relatively independent dimensions of human sociosexuality. They also found that sociosexuality was stable during a period of one year. A large sample of German speaking people was used for validation of SOI-R, and the test-retest reliability and internal consistency were improved compared to the original version of the instrument.

**Assessment of exercise behavior.** Exercise behavior of the partners were measured by using Leisure Time Exercise Questionnaire (Godin & Shephard, 1985). The respondents report how many times a week they do strenuous, moderate and mild exercise during their free time for duration of 15 minutes or more. The frequency of exercise that increases heart rate is inquired with answer choices "often", "sometimes" and "never/rarely". A total leisure activity score is counted for the first three items, which consists of the sum of strenuous exercise multiplied by 9, moderate exercise multiplied by 5 and mild exercise multiplied by 3. Test-retest reliability of the instrument over a two-week



period is good, as well as concurrent validity against other measures that assess physical condition (Godin & Shephard, 1985).

### Statistical analyses

The statistical analyses were performed using R 3.5.1 packages *lme4* (Bates, Mächler, Bolker, & Walker, 2014), *Matrix* (Bates, Maechler, Davis, Oehlschlägel, Riedy, 2018), and *lmerTest* (Kuznetsova, Brockhoff, & Christensen, 2017). The package *lme4* is used to fit linear and generalized linear mixed-effect models, the package *Matrix* organizes the data by creating a matrix from the given set of values and finally the package *lmerTest* provides *p*-values for one, two or three type ANOVAs. A multilevel linear mixed model was used, where partners in each focus group were used as the level one hierarchical group, and groups by focus persons were used as level two. Random variance estimates were calculated for both the within-group and between-group variances. Intraclass Correlations (ICCs) for each group were calculated. ICCs are used when measurements are made on units that are organized into groups (here, the focus person determines the groups). The ICC shows how similar units (here: partners) in the same group are to each other. ICC was used to calculate how much 1) religiosity, 2) political and economic values, 3) mate value, 4) sociosexuality, and 5) exercise behavior of the partners of each focus person correlate with each other. The ICC for each of the variables were calculated separately. The ICC can have a value between 0 and 1, if the value is 1 this would mean that clustering in a group is total. The interpretation of clustering in this case, however, is not this simple. The ICC is an estimate of group belonging, but also accounts for the between-group variance. The ICC is therefore dependent on the variance between groups. This means that clustering appears if the variance within a group is smaller than the variance between groups. If all groups are alike, no clustering appears (i.e., the focus persons cannot have "a type" since everybody is having that type).

The ICC can be interpreted as small but meaningful if it reaches at least .10, medium-sized or moderate when it reaches .20 and relatively large when it reaches .30 (Eastwick et al., 2017; Gignac & Szodorai, 2016). If, for example, the ICC for religious beliefs reaches .30, this would mean that 30% of the variance could be attributable to the focus person on this trait (i.e. that the trait clusters by 30%).

Eastwick et al., (2017) showed in their simulation study how calculating the ICC's for each focus persons' partner remain at least medium-sized even when only two partners were selected. They used an agent-based prototype where they studied a model where people select mates based on their preferences (no bias) and concluded that even a small number, for example two partners,

gives at least a medium-sized (.20) ICC. The ICC remained medium-sized also when the number of attributes increased.

We further tested our hypothesis (that the variance is not explained by a focus person, i.e., the null hypothesis) with an F-test. To weigh the strength of our effect we computed the  $p$ -value of significance, where  $p$  was considered significant if it was lower than .05. To control for multiple comparisons, a Bonferroni adjusted  $p$  value was calculated. The total amount of variables was 10, therefore the Bonferroni adjusted alpha levels for significance of the ICC were  $0.05 / 10 = 0.005$ .

## RESULTS

ICCs, F-values and  $p$ -values for the measured variables are presented in Table 2. Three variables reached large ICCs, which means that >30% of the variance on the variables were attributable to the focus persons. These variables were political values (35%), the behavior dimension of sociosexuality (37%) and exercise frequency (53%). The variance of the global score of sociosexuality was attributable to the focus person by 29%, the attitude dimension of sociosexuality by 20%, and reached medium sized ICCs (>.20). Economic values (12%) and total leisure activity (13%) showed small effects (>.10). None of the F-values that were calculated remained statistically significant after controlling for multiple comparisons, that is, none of the  $p$ -values reached the alpha level of < .005. However, exercise frequency reached a nominally significant alpha level of  $p = .04$ . The variances of mate value (0%) religiosity (7%) and desire dimension of sociosexuality (0%) were not attributable to the focus person.

The groups are presented in Table 3. Figure 3 illustrates an example of a trait that did not show clustering, and a trait that showed clustering.

Table 2.

*Percentage of variance attributable to focus person*

<b>Variable</b>	<b>ICC (% of the variance attributable to focus person)</b>	<b>F-value (degrees of freedom)</b>	<b>p</b>
Political values	.35 (35%)	1.55 (14,29)	.15
Economic values	.12 (12%)	1.14 (14,29)	.36
Religiosity	.07 (7%)	1.08 (14,29)	.41
Mate value	.00 (0%)	1.00 (11,25)	.47
SOI-R: Global score	.29 (29%)	1.41 (14,29)	.21
SOI-R: Desire	.00 (0%)	1.00 (14,29)	.47
SOI-R: Attitudes	.20 (20%)	1.24 (14,29)	.30
SOI-R: Behavior	.37 (37%)	1.59 (14,29)	.14
QLT: Total leisure activity	.13 (13%)	1.14 (14,28)	.37
QLT: Exercise frequency	.53 (53%)	2.12 (14,29)	.04

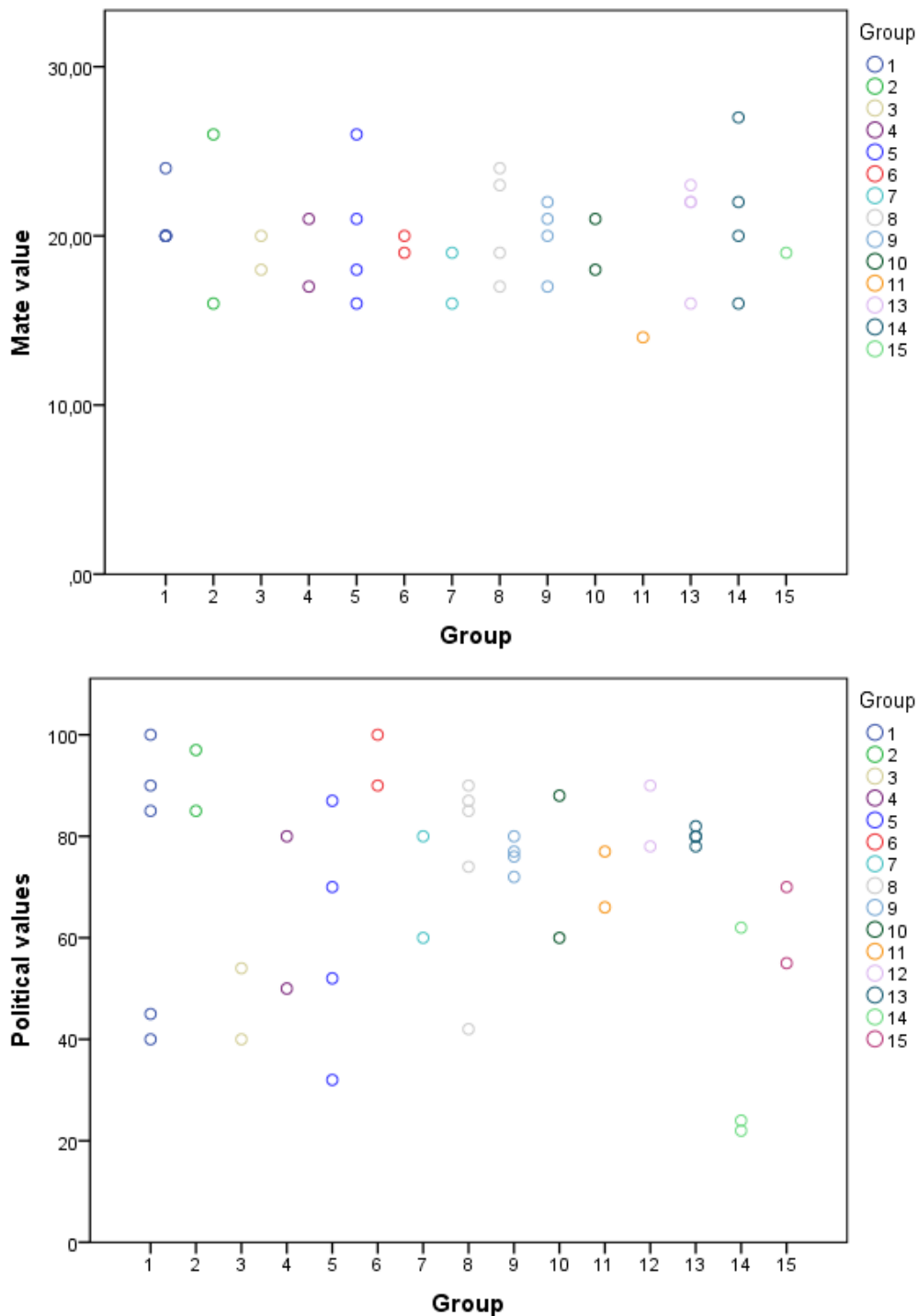
*Note.* ICC= intraclass correlation, SOI-R= The Revised Sociosexual Orientation Inventory, QLT: Godin Leisure Time Exercise Questionnaire

Table 3.

*Partners sorted in groups by focus person.*

Group	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
N	5	2	2	2	4	2	2	5	4	2	2	2	4	4	2

*Note.* N= number of partners in the groups.



*Figure 3.* The first scatterplot illustrates the multiple partners' level of mate value (Y-axis) for every focus group (X-axis). Mate value did not show clustering (0%). The second scatterplot illustrates the multiple partners' political values from conservative to liberal (Y-axis) for every focus group (X-axis). Political values showed a clustering of 35%. The dots are scattered on a wider range on the second plot, (i.e., overall, there is more variance in partners' political values). The dots are close to each other in each group, i.e. the within group variance is small. On the first plot, the dots are all scattered on a small area, therefore, there is no clustering on mate value.

## DISCUSSION

The current study aimed to investigate human mate choice by comparing a person's multiple partners to see if there is consistency in a person's choices. In other words, I wanted to see if people have a type in terms of political and economic values, religiosity, sociosexuality, mate value and exercise behavior. I studied clustering, that is, intraclass correlations of these traits for each focus group, to find out the proportion of variance that is attributable to the focus persons. Apart from religiosity, there are to my knowledge no previous studies investigating clustering of these traits on a person's multiple partners.

### **Main findings and interpretation**

The results of the current study showed substantial clustering of political values, behavior dimension of sociosexuality and exercise frequency of a person's multiple partners. That is, the variances of these traits were largely attributable to the focus person. The attitude dimension and the global score of sociosexuality reached medium effects. Economic values and total leisure activity showed small effects of clustering. Mate value, desire dimension of sociosexuality and religiosity showed little or no clustering at all. These results indicate that people have a specific type when it comes to political and economic values, attitudes toward uncommitted sex, sociosexual behavior (quantity of past short-term sexual relationships) and exercise behavior. However, none of these results reached the Bonferroni adjusted level of significance. Exercise frequency reached a nominally significant alpha level, and had the largest effect, where 53% of the variance was attributable to the focus person. Bonferroni correction is in this case, however, a rather conservative method to control the effect of multiple comparisons, since it assumes that there is no correlation between the measures.

Based on previous research on the subject, we expected each one of the measured traits to cluster. The clustering we found did not reach statistical significance, likely because our sample was underpowered. However, the clustering effects for some of the variables were large, such as for exercise frequency. Small sample size might also explain why, in contrast to the study of Eastwick et.al. (2017), religiosity showed no clustering in this study. If there is no variance in the answers of the participants, clustering is difficult to find. Therefore, clustering is easier to find in a more heterogeneous sample. In the present sample, 66% of the participants were not religious at all, in other words, the responses regarding religion were very homogeneous. With very little variance in the preferences of the focus persons, clustering is unlikely to be found. In other words, for a clustering effect to show, the focus persons need to have differences in their mate preferences.

We did not state any specific requirements for the relationships in our study, thus, the character of the relationships might vary from short one-night stands to long serious relationships. According to the Stimulus–Value–Role theory by Murstein (2006), different traits play role at different phases of mate choice. The theory describes how the importance of different traits changes from the first encounter to the decision to marry. At the first encounter with a potential partner, traits such as physical attractiveness and social status are of importance. At the second stage, mate choice is based on values and attitudes. At the final stage, it becomes important to determine how the relationship works in practice, and whether the mates are sexually compatible. The traits that showed clustering in the current study were mostly related to values and attitudes, which are crucial in the beginning of a new relationship. Political values, that according to this theory should be an important factor in a beginning of a new relationship, showed a large effect of clustering. These results are in line with previous studies (e.g. Alford et al., 2011), that have shown political values to correlate strong between spouses and therefore seem to be an important factor in mate choice. The way we measured political values might also explain the large effect of clustering. The participants described their political views by placing themselves on a scale from liberal to conservative. These ideals are closely related to intimate relationships and family life. Liberalism and conservatism might describe an individual's attitudes towards a traditional versus a progressive intimate relationship and could therefore potentially be relevant factors to consider when choosing a mate. In addition, since we did not control the effect of social background in the current study, social homogamy might also have affected the large clustering in political values of the partners.

Having loose inclusion criteria for the relationships in the current study might have influenced the large effect of clustering in behavior dimension of sociosexuality. Since we did not have any strict requirements for the relationships, our sample is likely heterogenic in terms of mating tactics and expectations for a relationship. Sociosexual behavior describes the mating tactics that a person has used in previous relationships (Penke & Asendorpf, 2008). The same study found high score on sociosexual behavior to predict multiple partners and unstable relationships in the future. A moderate correlation of sociosexuality has been found between mates (Tempelhof & Sabura Allen, 2008), which would indicate that we choose partners that are similar to us in terms of sociosexuality. Our results are in line with the previous studies, and it makes sense that people tend to choose partners that want the same thing from a relationship.

Sociosexual behavior correlates low with sociosexual desire, since we are not always able to use the mating tactic we would prefer because of the competitiveness of the dating market (Penke & Asendorpf, 2008). This could explain why we found no clustering on sociosexual desire, while all other dimensions of sociosexuality showed medium to large effects. Sociosexual desires might be

something private that our partners do not know about, in contrast to attitudes and behavior that might affect our potential partners' decisions to want to date us.

Exercise frequency, which showed the largest effect of clustering, could be seen as a measure of either physical fitness or as a measure of behavior. The questionnaire that was used in the current study, Leisure time Exercise Questionnaire was found by Godin and Shephard (1985) to describe a person's overall physical fitness. That way, it might describe a person's attractiveness, however, it could also describe a lifestyle of a person as a measure of activity. This high effect of clustering should be studied further with a better powered sample. Furthermore, different assessment methods should be used, to be able to distinguish what causes the clustering effect by controlling physical appearance.

The current study was the first one to investigate if people have a specific type in terms of mate value. We used a measure of self-rated mate value and did not find any clustering. These results indicate that people do not consistently choose partners that perceive their own mate value to be on the same level. Eastwick and Hunt (2014) found that the evaluations of a person's mate value are quite unique, when comparing individuals' evaluations of others mate value. The study also revealed that when the evaluator and the target had known each other a longer time, or if they were in a romantic relationship, the evaluations became even less objective. Therefore, it is possible that people have a type when it comes to mate value, but a different assessment method of mate value should be used to detect an effect of clustering. If evaluations of one's partner's mate value depends primarily on the focus person's unique experience of the person, mate value of the multiple partners should be asked from the focus person rather than the partners.

### **Limitations of the current study**

The main limitation of the present study was low statistical power. The method we used to recruit participants proved to be challenging. Even though the survey reached a lot of people (as evidenced by the relatively high number of focus persons – 634 individuals – who logged on to the survey), the focus persons generally contacted very few partners, and of these, even fewer responded. Furthermore, the focus persons recruiting the partners themselves might have led to the focus persons only contacting partners that they are on good terms with. The partners that the focus persons decided to contact could be different from the partners they chose not to contact. This might have resulted in the partners being more similar to each other, than if the partners had been recruited in a different way. However, having the focus persons recruit the partners ensured that also the partners of the focus persons remained anonymous (a condition of the ethical research permit). In future studies, the importance of contacting as many partners as possible should be emphasized

more. Many partners were excluded being the only partner to a focus person, and therefore not being able to provide data of clustering.

The analytic strategy of studying clustering does not take into account the reciprocal nature of partner choice (Conroy-Beam & Buss, 2016). In real life, we do not get to choose partners entirely according to our preferences: The choices need to be reciprocal. In addition, some individuals have more choice with mates than others. According to Edlund and Sagarin (2010), individuals with higher mate value demand more of the preferred qualities in their partners. As a result, a focus person's mate value can affect the effects of clustering. When mate value of the focus person is higher, the former partners could be expected to be more similar, and as a result, more clustering of traits should be found. Thus, the differences between mate choices of those with high versus low mate value could be an interesting question for future studies.

Men and women tend to have different preferences for partners (Buss, 1989; Lukaszewski & Roney, 2010; Townsend & Levy, 1990) and to use different mating tactics (Trivers, 1972), therefore, differences between sexes in clustering of traits might be expected. Sex differences in clustering could not be studied due to the small sample size.

In the study of Eastwick et al. (2017), the effects of clustering where to a large extent explained by social homogamy. In the current study, such effects were not controlled for. Therefore, we do not know if the effect of clustering was caused by focus persons' individual preferences, or demographic stratification. In other words, focus persons might have picked their partners from their close environment (e.g. same group of friends) which could have resulted in the partners being similar to each other.

Since we do not know whether relationships of the focus people were casual or serious, different traits might have been crucial in relationships of different character for a focus person. Furthermore, since we do not know which relationships lasted and which did not, the current study might offer us information about the initial choice of partner, the traits that make us interested in a person in the beginning of a new relationship. In the study of Eastwick et al. (2017), the character of the relationship (i.e., casual or serious) did not affect the amount of clustering observed in the multiple partners of focus persons.

Most of the previous studies on mate selection have been based on samples with participants in heterosexual relationships, which limits the generalizability of everything we have learned on human mate choice. Our sample consisted mostly of heterosexual couples, which limits further the generalizability of our results.



## Conclusion

The current study is the first to investigate the consistency of mate choices in terms of values, sociosexuality, mate value and exercise behavior. Large effects of clustering were found for political values, exercise behavior and sociosexuality. These results suggest that individuals choose their mates according to individual preferences for these traits consistently over time. However, these results should be interpreted with caution, since the power of the sample was poor. These traits should be studied in the future with a better powered sample. A more effective way of recruiting multiple partners to a person should be developed. It is possible, that clustering effects could be detected in a better powered sample for other measured traits as well.

The world of dating and partner choice is changing, since it becomes more common for couples to meet online. One-third of marriages start online (Cacioppo, Cacioppo, Gonzaga, Ogburn, & VanderWeele, 2013), and studies show these marriages to be different from marriages that start offline in many ways. Marriages that start online are happier (Cacioppo et al., 2013), sorting based on employment and geographic location is lower, while married couples met online are more likely to be similar in terms of age, education and marital history (Lee, 2016). Ortega and Hergovich (2017) also found that interracial marriages have increased, hypothesizing that this is increasingly due to the availability of online dating platforms. Through online dating, assortment through social homogamy is decreasing, and we have a bigger pool of potential mates to choose from. Since dating and mating is changing, there is a need for future studies to keep up with the changes in human mate choice.

## Swedish summary

### Följdriktighet i partnerval – värderingar, sociosexualitet, motionsvanor och partnervärde

#### Inledning

Val av partner är en process som har utvecklats genom naturligt urval för att främja välmående av vår avkomma (Geary m.fl., 2004). Genom att välja en partner som besitter adaptiva drag, försäkras vi våra barns möjligheter till överlevnad och reproduktion. Målet med denna avhandling var att undersöka om människor väljer sina partners enligt individuella preferenser för politiska värderingar, religiösa åsikter, sociosexualitet, motionsvanor och självuppskattat partnervärde. Detta undersöktes genom att jämföra personers nuvarande och/eller före detta partners. Genom att samla in data på flera partners till en fokusperson, kunde vi undersöka om människor har en ”typ”. Med andra ord undersökte vi om människor väljer följdriktigt partners med vissa drag.

Forskningen kring partnerval har hittills fokuserat främst på partnerpreferenser. Forskningen är snäv kring själva valprocessen och individuella skillnader i partnerpreferenser. En speed-dating studie visade att även om vi är medvetna om våra individuella preferenser för potentiella partners, väljer vi ofta partners som inte motsvarar dessa preferenser (Todd m.fl., 2007). Studier som har undersökt likheter mellan partners i äktenskap och parförhållanden visar att partners liknar varandra i deras attraktivitet, intelligens, värderingar och attityder (Bouchard & McGue, 1981; Buss, 1984; Lykken & Tellegen, 1993; Vandenberg, 1972). De drag som korrelerar högst mellan partners är politiska åsikter, religion och värderingar (Alford m.fl., 2011). Även motionsvanor har visats korrelera mellan partners (George m.fl., 2015).

Det finns få studier som har undersökt följdriktigheten i en persons partnerval. I en studie av Eastwick m.fl. (2017) undersöktes klustring av personlighetsdrag och religion hos flera partners till fokuspersoner. Med deras metod kunde man analysera vilken andel av variansen som var beroende av fokuspersonen. Med andra ord fick man svar på frågan om människor väljer följdriktigt partners enligt individuella preferenser för vissa drag. En stor klustereffekt hittades för religiösa åsikter. I studien förklarades effekten av omgivningsfaktorer snarare än fokuspersonernas individuella preferenser. Det vill säga vi väljer partners från vår sociala närmiljö, vilket leder till att våra partners är lika i vissa avseenden.

Den föreliggande studien är den första som använder den analytiska strategin av Eastwick m.fl. (2017) för att undersöka klustring av politiska värderingar, sociosexualitet, motionsvanor och partnervärde. Sociosexualitet beskriver individens sexuella strategier (Gangestad & Simpson, 1990)

och är därmed relevant i partnerval. Partnervärde beskriver egenskaper som påverkar en individs reproduktiva värde som partner (Edlund & Sagarin, 2010). Studiens hypotes var att det skulle finnas klustring av dessa drag hos nuvarande och/eller före detta partners till fokuspersoner. Hypotesen baserar sig på tidigare forskning kring ämnet.

## Metod

Datainsamlingen genomfördes med hjälp av en nätenkät. Deltagare (fokuspersoner) rekryterades via sociala medier samt via e-postlistor till universitet. Deltagarna ombads besvara frågor angående personlig information så som kön, utbildningsnivå och yrke, samt att kontakta minst två nuvarande och/eller före detta sexuella eller romantiska partners. Nätenkäten till partnererna innehöll självskattningsformulär med frågor angående politiska och ekonomiska värderingar, religiösa åsikter, sociosexualitet, motionsvanor och partnervärde. Partnernas svar kunde kopplas till de rätta fokuspersonerna med hjälp av en deltagarkod. Deltagande var anonymt och forskningen godkändes av den etiska nämnden vid Åbo Akademi.

Svaren analyserades med hjälp av programmet R 3.5.1. Intraklass korrelationer (ICC) räknades för varje variabel för att se hur stor andel av variansen i partnernas svar var beroende av fokuspersonen. Korrelationskoefficienterna beskriver effekten av klustring.  $ICC > 0,1$  anses som en liten effekt,  $ICC > 0,2$  anses som en medelstor effekt och  $ICC > 0,3$  anses beskriva en stor effekt av klustring.

## Resultat

Resultaten presenteras i Tabell 2. Politiska värderingar, sociosexuellt beteende samt motionsfrekvens visade stora effekter av klustring. Andelen varians i partnernas svar som för dessa variabler var beroende av fokuspersonen var över 30 %. Helhetspoängen av sociosexualitet och sociosexuella attityder visade medelstora effekter medan finansiella värderingar och total fritidsmotion visade små effekter. Ingen av effekterna uppnådde en statistiskt signifikant nivå efter korrigering för multipla jämförelser. Effekten av motionsfrekvens var nominellt signifikant  $p = 0,04$ .

## Diskussion

Resultaten från den föreliggande studien tyder på att det är sannolikt att människor väljer sina partners följdriktigt enligt individuella preferenser för värderingar, sociosexualitet och motionsvanor. På grund av den låga statistiska styrkan samt den låga generaliserbarheten måste dessa resultat studeras noggrannare. Eftersom studien inte kontrollerade för demografiska faktorer i analyserna, kan det inte uteslutas att fokuspersonernas partners har varit lika på grund av en gemensam social miljö, så som arbetsplats, vänskapsgrupp eller utbildningslinje. En effektivare metod för rekrytering av partners borde utvecklas för att få ett större sampel och därmed bättre statistisk styrka för att upptäcka klustering.

Partnervärde visade ingen klustereffekt i den föreliggande studien. Partnervärdets roll i val av partner borde ändå studeras noggrannare med mätinstrument som inte baserar sig på självskattning. Detta ställer dock metodologiska krav för framtida studier. Effekten av fokuspersonens partnervärde på klustering borde även undersökas. Enligt Edlund och Sagarin (2010) påverkar personens partnervärde möjligheten att hitta en partner som motsvarar ens preferenser.

Partnerval har förändrats under de senaste åren. Eftersom online dejting blir allt vanligare, har vi ett större utbud av potentiella partners än tidigare. En tredjedel av alla äktenskap börjar på nätet, och dessa äktenskap skiljer sig från äktenskap som inte har påbörjats på nätet (Cacioppo et al., 2013). På grund av dessa förändringar behövs det forskning inom fältet för att bättre kunna förstå effekterna som online dejting har på partnerval.

## REFERENCES

- Alford, J. R., Hatemi, P. K., Hibbing, J. R., Martin, N. G., & Eaves, L. J. (2011). The politics of mate choice. *Journal of Politics*, 73(2), 362–379. <https://doi.org/10.1017/S0022381611000016>
- Bates, D., Mächler, M., Bolker, B., & Walker, S. (2014). Fitting Linear Mixed-Effects Models using lme4, 67(1), 1–48. <https://doi.org/10.18637/jss.v067.i01>
- Bates, D., Mächler, M., Davis, T.M., Oehlschlägel, J., Riedy, J. (2018). Matrix: Sparse and Dense Matrix Classes and Methods. R package version: 1.2-15
- Belot, M., & Francesconi, M. (2013). Dating Preferences and Meeting Opportunities in Mate Choice Decisions. *The Journal of Human Resources*, 48(2), 474–508. <https://doi.org/doi:10.3368/jhr.48.2.474>
- Bouchard, T. J., & McGue, M. (1981). Familial studies of intelligence: A review. *Science*, 212(4498), 1055–1059. <https://doi.org/10.1126/science.7195071>
- Brase, G. L., & Guy, E. C. (2004). The demographics of mate value and self-esteem. *Personality and Individual Differences*, 36(2), 471–484. [https://doi.org/10.1016/S0191-8869\(03\)00117-X](https://doi.org/10.1016/S0191-8869(03)00117-X)
- Buss, D. M. (1984). Marital assortment for personality dispositions: Assessment with three different data sources. *Behavior Genetics*, 14(2), 111–123. <https://doi.org/10.1007/BF01076408>
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences*, 12(1), 1–14. <https://doi.org/10.1017/S0140525X00023992>
- Cacioppo, J. T., Cacioppo, S., Gonzaga, G. C., Ogburn, E. L., & VanderWeele, T. J. (2013). Marital satisfaction and break-ups differ across on-line and off-line meeting venues. *Proceedings of the National Academy of Sciences*, 110(25), 10135–10140. <https://doi.org/10.1073/pnas.1222447110>
- Conroy-Beam, D. (2018). Euclidean Mate Value and Power of Choice on the Mating Market. *Personality and Social Psychology Bulletin*, 44(2), 252–264. <https://doi.org/10.1177/0146167217739262>
- Conroy-Beam, D., & Buss, D. M. (2016). Supplemental Material for Do Mate Preferences Influence Actual Mating Decisions? Evidence From Computer Simulations and Three Studies of Mated Couples. *Journal of Personality and Social Psychology*, 111(1), 53–66. <https://doi.org/10.1037/pspi0000054.supp>
- Cooper, K (2017). The most important questions on OkCupid, not all questions are created equal. *OkCupid*, Retrieved from: <https://theblog.okcupid.com/the-most-important-questions-on->

okcupid-32e80bad0854

- Eastwick, P. W., Harden, K. P., Shukusky, J. A., Morgan, T. A., Joel, S., Ali, N., ... Truong, L. (2017). Consistency and Inconsistency Among Romantic Partners Over Time. *Journal of Personality and Social Psychology*, 112(6), 838–859.  
<https://doi.org/10.1037/pspi0000087.supp>
- Eastwick, P. W., & Hunt, L. L. (2014). Relational mate value: Consensus and uniqueness in romantic evaluations. *Journal of Personality and Social Psychology*, 106(5), 728–751.  
<https://doi.org/10.1037/a0035884>
- Edlund, J. E., & Sagarin, B. J. (2010). Mate value and mate preferences: An investigation into decisions made with and without constraints. *Personality and Individual Differences*, 49(8), 835–839. <https://doi.org/10.1016/j.paid.2010.07.004>
- Edlund, J. E., & Sagarin, B. J. (2014). The Mate Value Scale. *Personality and Individual Differences*, 64, 72–77. <https://doi.org/10.1016/j.paid.2014.02.005>
- Gangestad, S. W., & Simpson, J. A. (1990). Toward an Evolutionary History of Female Sociosexual Variation. *Journal of Personality*, 58(1), 69–96.
- Geary, D. C., Vigil, J., & Byrd-Craven, J. (2004). Evolution of Human Mate Choice. *The Journal of Sex Research*, 41(1), 27–42.
- George, D., Lou, S., Webb, J., Pugh, J., Martinez, A., & Foulston, J. (2015). Couple similarity on stimulus characteristics and marital satisfaction. *Personality and Individual Differences*, 86(1), 126–131. <https://doi.org/10.1016/j.paid.2015.06.005>
- Gignac, G. E., & Szodorai, E. T. (2016). Effect size guidelines for individual differences researchers. *Personality and Individual Differences*, 102(7), 74–78.  
<https://doi.org/10.1016/j.paid.2016.06.069>
- Godin, G., & Shephard, R. (1985). A Simple Method to Assess Exercise Behavior in the Community. *Canadian Journal of Applied Sport Sciences. Journal Canadien Des Sciences Appliquées Au Sport*, 10(2), 141–146.  
<https://doi.org/https://www.researchgate.net/publication/19109206>
- Heath, A. C., & Eaves, L. J. (1985). Resolving the effects of phenotype and social background on mate selection. *Behavior Genetics*, 15(1), 15–30. <https://doi.org/10.1007/BF01071929>
- Humbad, M. N., Donnellan, M. B., Iacono, W. G., McGue, M., & Burt, S. A. (2010). Is spousal similarity for personality a matter of convergence or selection? *Personality and Individual Differences*, 49(7), 827–830. <https://doi.org/10.1016/j.paid.2010.07.010>
- Kalmijn, M. (1998). Intermarriage and Homogamy: Causes, Patterns, Trends. *Annu. Rev. Sociol.*, 24(1), 395–421. <https://doi.org/doi:10.1146/annurev.soc.24.1.395>

- Koenig, H. G., & Büssing, A. (2010). The Duke University Religion Index (DUREL): A Five-Item Measure for Use in Epidemiological Studies. *Religions*, 1(1), 78–85.  
<https://doi.org/10.3390/rel1010078>
- Kuznetsova, A., Brockhoff, P. B., & Christensen, R. H. B. (2017). lmerTest Package: Tests in Linear Mixed Effects Models. *Journal of Statistical Software*, 82(13), 1–26.  
<https://doi.org/10.18637/jss.v082.i13>
- Lee, S. (2016). Effect of Online Dating on Assortative Mating: Evidence from South Korea. *Journal of Applied Econometrics*, 31(6), 1120–1139. <https://doi.org/10.1002/jae.2480>
- Lukaszewski, A. W., & Roney, J. R. (2010). Kind toward whom? Mate preferences for personality traits are target specific. *Evolution and Human Behavior*, 31(1), 29–38.  
<https://doi.org/10.1016/j.evolhumbehav.2009.06.008>
- Luo, S., & Klohnen, E. C. (2005). Assortative mating and marital quality in newlyweds: A couple-centered approach. *Journal of Personality and Social Psychology*, 88(2), 304–326.  
<https://doi.org/10.1037/0022-3514.88.2.304>
- Lykken, D. T., & Tellegen, A. (1993). Is Human Mating Adventitious or the Result of Lawful Choice? A Twin Study of Mate Selection. *Journal of Personality and Social Psychology*, 65(1), 56–68. <https://doi.org/10.1037/0022-3514.65.1.56>
- Murstein, B. I. (2006). Stimulus. Value. Role: A Theory of Marital Choice. *Journal of Marriage and the Family*. <https://doi.org/10.2307/350113>
- Nowak, N., & Danel, D. (2014). Mate value asymmetry and relationship satisfaction in Female Opinion. *Journal of Sex and Marital Therapy*, 40(5), 425–433.  
<https://doi.org/10.1080/0092623X.2012.756839>
- Ortega, J., & Hergovich, P. (2017). *The Strength of Absent Ties: Social Integration via Online Dating*. SSRN. <https://doi.org/10.2139/ssrn.3044766>
- Penke, L., & Asendorpf, J. B. (2008). Beyond Global Sociosexual Orientations: A More Differentiated Look at Sociosexuality and Its Effects on Courtship and Romantic Relationships. *Journal of Personality and Social Psychology*, 95(5), 1113–1135.  
<https://doi.org/10.1037/0022-3514.95.5.1113>
- Pérusse, D. (1993). Cultural and reproductive success in industrial societies: Testing the relationship at the proximate and ultimate levels. *Behavioral and Brain Sciences*, 16(2), 267–322. <https://doi.org/10.1017/S0140525X00029939>
- Robinson, M. R., Nolte, I. M., van Vliet-Ostaptchouk, J. V., Snieder, H., & Visscher, P. M. (2017). The Lifelines Cohort Study, & Genetic Investigation of Anthropometric Traits (GIANT) consortium (2017). Genetic evidence of assortative mating in humans. *Nature Human*

*Behaviour*, 1(0016). <https://doi.org/10.1038/s41562-016-0016>

- Simpson, J. A., & Gangestad, S. W. (1991). Individual Differences in Sociosexuality: Evidence for Convergent and Discriminant Validity. *Journal of Personality and Social Psychology*, 60(6), 870–883. <https://doi.org/10.1037/0022-3514.60.6.870>
- Simpson, J. A., & Gangestad, S. W. (1992). Sociosexuality and Romantic Partner Choice. *Journal of Personality*, 60(1), 31–51. <https://doi.org/http://dx.doi.org/10.1111/j.1467-6494.1992.tb00264.x>
- Storch, E. A., Roberti, J. W., Heidgerken, A. D., Storch, J. B., Lewin, A. B., Killiany, E. M., ... Geffken, G. R. (2004). *The Duke Religion Index: A Psychometric Investigation*. *Pastoral Psychology* (Vol. 53).
- Storch, E. A., Strawser, M. S., & Storch, J. B. (2004). Two-week test-retest reliability of the Duke Religion Index. *O Psychological Reports*, 94(3), 993–994.
- Sugiyama, L. (2005). Physical attractiveness in adaptationist perspective. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 292–343). Hoboken: John Wiley & Sons. Retrieved from <https://www.researchgate.net/publication/200008919>
- Tempelhof, T. C., & Sabura Allen, J. (2008). Partner-specific investment strategies: Similarities and differences in couples and associations with sociosexual orientation and attachment dimensions. *Personality and Individual Differences*, 45(1), 41–48. <https://doi.org/10.1016/j.paid.2008.02.016>
- Todd, P. M., Penke, L., Fasolo, B., & Lenton, A. P. (2007). *Different cognitive processes underlie human mate choices and mate preferences*. 104(38). Retrieved from [www.pnas.org/cgi/doi/10.1073/pnas.0705290104](http://www.pnas.org/cgi/doi/10.1073/pnas.0705290104)
- Townsend, J. M., & Levy, G. D. (1990). *Effects of Potential Partners' Physical Attractiveness and Socioeconomic Status on Sexuality and Partner Selection*. *Archives of Sexual Behavior* (Vol. 19).
- Trivers, R. L. (1972). *Parental investment and sexual selection*.
- Vandenberg, S. G. (1972). Assortative mating, or who marries whom? *Behavior Genetics*, 2(2), 127–157. <https://doi.org/10.1007/BF01065686>



## PRESSMEDDELANDE

Människor verkar välja partners enligt sina preferenser för värderingar och motionsvanor,

Pro gradu-avhandling i psykologi

Fakulteten för humaniora, psykologi och teologi, Åbo Akademi

Resultaten från en pro-gradu avhandling i psykologi vid Åbo Akademi tyder på att människor väljer följdriktigt sexuella/romantiska partners som liknar varandra i deras värderingar och motionsvanor. Dessa fynd tyder på att människor väljer sina partners enligt individuella preferenser, dvs. har en "typ". Studien utfördes i form av en nätenkät. 15 personers deltog, och deras nuvarande och/eller före detta partners besvarade frågor om deras värderingar, sociosexualitet, partnervärde och motionsvanor. Partnervärde och religion visade inga klustringseffekter, med andra ord verkar människor inte ha en "typ" när det gäller dessa drag. På grund av låg deltagarantal var den statistiska styrkan av studien låg, vilket innebär att man bör vara försiktig i att dra slutsatser på basis av resultaten.

Avhandlingen utfördes av Helmi Rautaheimo under handledning av Annika Gunst PsD och Patrik Jern PsD

Ytterligare information fås av: Helmi Rautaheimo

Tel. 0505505660

Email: [helmi.rautaheimo@abo.fi](mailto:helmi.rautaheimo@abo.fi)